

Mingling with Microbes in Prairie Restoration

Korena Mafune, kmafune@u.washington.edu

What is happening?

- A restoration project is being conducted on several sites in the north and south sounds of Washington due to the decline of prairie ecosystems.
- The project consists of treating seeded prairie plots with either solarization, burning, or herbicide treatments.
 - I am focusing on whether microbial activity and nitrogen (N) availability differ among sites and the treatments within the sites.



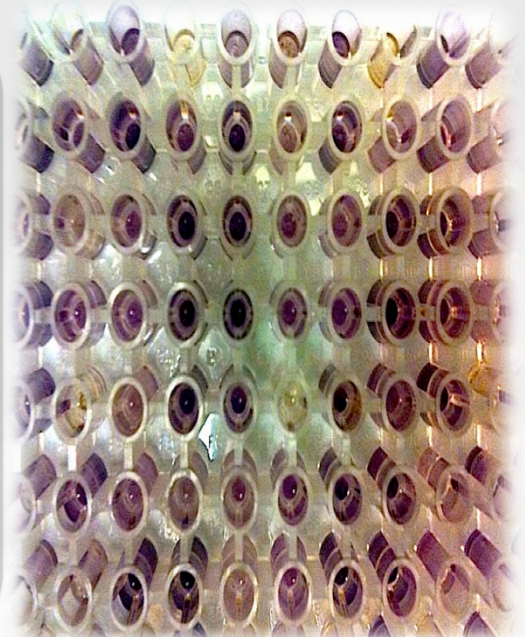
Several prairie plots

Why are soil processes so important?

- Nutrient availability, gas exchange, and microbial activity are critical in the growth and succession of plant species.
- Samples from this experiment were inoculated into Biolog EcoPlates™ and N mineralization for each treatment was measured.
 - The results provide valuable information on the affect the treatments have on microbial activity and N mineralization, which are important aspects when trying to restore species composition.



Several species within a treatment plot
Photo courtesy of Natalie Schmidt



Biolog EcoPlate with 32 different carbon substrates showing color change in response to microbial activity



Inoculating microbial cells into EcoPlate™